APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,564	03/30/2001	Gina Danielle Venolia	M61.12-0329	7211

			EXAMINER
27366 7590 04/27/2006			RIES, LAURIE ANNE

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ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 18-31* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 18-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *11/12/04*.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications: Request for Continued

Examination, filed 10 February 2006, to the Original Application filed 30 March 2001.

2.   The rejection of claims 1-5, 8-10, and 18-31 under 35 U.S.C. 103(a) as being

unpatentable over King (U.S. Patent 5,953,541) has been withdrawn as necessitated by

amendment and newly found prior art.

3.   The rejection of claims 6-7 and 11 under 35 U.S.C. 103(a) as being unpatentable

over King (U.S. Patent 5,953,541) in view of Connolly (U.S. Patent 6,005,495) has been

withdrawn as necessitated by amendment and newly found prior art.

4.   Claims 1-11 and 18-31 are pending. Claims 12-17 have been cancelled. Claims

1, 18, and 27 are independent claims.

Claim Rejections - 35 USC § 103

     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-5, 8-10, and 18-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (U.S. Patent 5,953,541) in view of Robinson (U.S. Patent 6,801,190 B1).

As per independent claim 1, King discloses a method of providing a user-desired word into a computer including having a computer select a word as a function of a selected character, the selected word having a character sequence (See King, Column 12, lines 5-34, and Figure 5B, element 511).

King also discloses receiving an indication from a user (See King, Figure 5B, and Column 27, lines 9-25).

King also discloses adjusting the range of characters or retaining the selected character based on the user's indication (See King, Figure 5C, and Column 27, lines 29-37).

King does not disclose expressly that the range of characters is an alphabetical range, however, it would have been obvious to a person of ordinary skill in the art to conclude that the character string disclosed by King represents an alphabetical range as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

King also does not disclose expressly that the computer selects a character or that the user indication indicates whether a user-desired character of the desired word is alphabetically preceding or succeeding the computer selected character or whether it matches the computer selected character. Robinson discloses that the computer selects a character as a default value (See Robinson, Column 33, lines 41-44). Robinson also discloses indicating whether the character precedes or succeeds or matches a user-desired character (See Robinson, Column 13, lines 52-55, and Figure 4A, element 4170).

King and Robinson are analogous art because they are from the same field of endeavor of correction of textual input in a computer-based system.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the default input character and character range relating to a selected character of Robinson with the text input system and method of King.

The motivation for doing so would have been to increase the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection (See Robinson, Column 13, lines 59-65). Therefore, it would have been obvious to combine Robinson with King for the benefit of increasing the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection to obtain the invention as specified in claim 1.

As per dependent claim 2, King and Robinson disclose the limitations of claim 1 as described above. King also discloses that the receiving step includes an indication

that a user-desired character is in a range alphabetically preceding or alphabetically

succeeding the selected character (See King, Figure 5D, and Column 27, lines 38-42),

and that step (e) includes adjusting the range of characters so that the range of

characters is approximately bounded by the selected character (See King, Figures 5A-

5K, and Column 27, lines 29-65).

As per dependent claim 3, King and Robinson disclose the limitations of claim 1

as described above. King also discloses that if the step of receiving includes receiving

an indication that the computer-selected character is the user-desired character,

retaining the computer-selected character (See King, Column 11, lines 6-9), and

advancing to the next character of the character sequence, if any (See King, Column

4,lines 48-65).

As per dependent claim 4, King and Robinson disclose the limitations of claim 3

as described above. King also discloses including step (g) of receiving an indication to

accept the set of characters (See King, Column 10, lines 47-53, lines 54-67, Column 11,

lines 1-29, Figure 1A, element 56, and Column 3, lines 51-54).

As per dependent claim 5, King and Robinson disclose the limitations of claim 4

as described above. King also discloses receiving an indication to remove at least one

character from the set of retained characters (See King, Column 23, lines 38-65).

As per dependent claim 8, King and Robinson disclose the limitations of claim 3

as described above. King also discloses successively repeating at least step (a) where

having the computer select a character includes having the computer select a character

as a function of the adjusted range of characters for each succession (See King,

Column 27, lines 9-25).

As per dependent claim 9, King and Robinson disclose the limitations of claim 8

as described above. King also discloses that successively repeating at least steps (a)

and (d) occurs when a new word cannot be selected in step (b) (See King, Column 28,

lines 10-14).

As per dependent claim 10, King and Robinson disclose the limitations of claim

8 as described above. King also discloses having the computer select the character as

a function of the set of retained characters (See King, Column 27, lines 9-17).

As per independent claim 18, King discloses a computing device including an

input device (See King, Column 8, lines 49-55), an output device (See King, Column 9,

lines 14-20), memory storing a lexicon (See King, Column 9, lines 32-47), a processor

accessing the memory (See King, Column 9, lines 30-32), and a module including

instructions executable by the processor, the module selecting a word from the lexicon

as a function of the selected character, presenting the word to the user through the

output device, and receiving an action from the user through the input device pertaining

to the selected character to indicate whether the selected character matches or fails to

match a user-desired character (See King, Figure 5B, and Column 27, lines 9-25 and

lines 29-37).

King does not disclose expressly that the range of characters is an alphabetical.

range, however, it would have been obvious to a person of ordinary skill in the art to

conclude that the character string disclosed by King represents an alphabetical range

as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

King also does not disclose expressly that the computer selects a character in a range of characters. Robinson discloses that the computer selects a character as a default value (See Robinson, Column 33, lines 41-44).

King and Robinson are analogous art because they are from the same field of endeavor of correction of textual input in a computer-based system.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the default input character of Robinson with the text input system and method of King.

The motivation for doing so would have been to increase the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection (See Robinson, Column 13, lines 59-65). Therefore, it would have been obvious to combine Robinson with King for the benefit of increasing the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection to obtain the invention as specified in claim 18.

As per dependent claim 19, King and Robinson disclose the limitations of claim 18 as described above. King also discloses that the input device includes isolated buttons indicative of different responses (See King, Figure 5B, element 56).

As per dependent claim 20, King and Robinson disclose the limitations of claim 19 as described above. King also discloses that at least some of the buttons are indicative of a subset of the alphabet (See King, Figure 5B, element 56).

As per dependent claim 21, King and Robinson disclose the limitations of claim 20 as described above. King also discloses that the computing device includes a telephone (See King, Column 1, lines 41-45).

As per dependent claim 22, King and Robinson disclose the limitations of claim 19 as described above. King also discloses that the computing device includes a pager (See King, Column 7, lines 12-15).

As per dependent claims 23 and 24, King and Robinson disclose the limitations of claims 1 and 2 as described above. King also discloses that step (a) or step (b) are based on probability of words in a lexicon and also repeating steps (a) to (e) using the adjusted alphabetical range (See King, Column 16, lines 57-67, Column 17, lines 1-67, Column 30, lines 13-67, and Column 31, lines 1-27).

As per dependent claim 25, King and Robinson disclose the limitations of claim 18 as described above. King also discloses instructions for adjusting the range of characters when the user indicates that the selected character is not the user-desired character (See King, Column 27, lines 38-47).

As per dependent claim 26, King and Robinson disclose the limitations of claim 18 as described above. King also discloses advancing to the next character in the character sequence when the user indicates that the selected character is the user-desired character (See King, Column 4, lines 48-65).

As per independent claim 27, King discloses a computer readable medium including computer-executable instructions to perform the steps of (a) selecting a character in an range (See King, Figure 5B, element 511, and Column 27, lines 9-25), (b) selecting a word based on the selected character (See King, Figure 5B, and Column 27, lines 9-25), (c) rendering the selected word, the word having a character sequence (See King, Figure 5B, and Column 27, lines 9-25), (d) receiving an indication from a user interface in response to the selected word, the indication pertaining to the computer-selected character (See King, Figure 5B, Column 27, lines 9-25, and Column 28, lines 21-37), and (e) adjusting the range of characters or retaining the selected character based on the user's indication (See King, Figure 5C, and Column 27, lines 29-37).

King does not disclose expressly that the range of characters is an alphabetical range, however, it would have been obvious to a person of ordinary skill in the art to conclude that the character string disclosed by King represents an alphabetical range as shown in Figure 1A (See King, Column 12, lines 23-26). The motivation for arranging the characters in an alphabetical range would have been to present the character choices in a sequence that is familiar to a typical user.

King also does not disclose expressly that the computer selects the character selected in the range of characters. Robinson discloses that the computer selects a character as a default value (See Robinson, Column 33, lines 41-44).

King and Robinson are analogous art because they are from the same field of endeavor of correction of textual input in a computer-based system.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the default input character of Robinson with the text input system and method of King.

The motivation for doing so would have been to increase the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection (See Robinson, Column 13, lines 59-65). Therefore, it would have been obvious to combine Robinson with King for the benefit of increasing the performance of the system such that the user need only interact and respond to predictions by the system regarding character and word selection to obtain the invention as specified in claim 27.

As per dependent claim 28, King and Robinson disclose the limitations of claim 27 as described above. King also discloses including an indication that the selected character is not the user's desired character (See King, Column 27, lines 38-39) or matches the user's desired character (See King, Column 11, lines 6-9).

As per dependent claim 29, King and Robinson disclose the limitations of claim 28 as described above. King also discloses identifying a new alphabetical range approximately bounded by the previously selected character (See King, Figures 5A-5K, and Column 27, lines 29-65).

As per dependent claim 30, King and Robinson disclose the limitations of claim 27 as described above. King also discloses including an indication that the selected character is not the user's desired character and advancing to the next character, if any, of the selected word's character sequence (See King, Column 27, lines 29-42).

As per dependent claim 31, King and Robinson disclose the limitations of claim

30 as described above. King also discloses receiving an indication that the next

character is not part of the user's desired word (See King, Column 28, lines 48-59).

6.   Claims 6-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable

over King (U.S. Patent 5,953,541) in view of Robinson (U.S. Patent 6,801,190 B1) as

applied to claims 1 and 10 above, and further in view of Connolly (U.S. Patent

6,005,495).

As per dependent claims 6 and 7, King and Robinson the limitations of claim 1

as described above. King and Robinson do not disclose expressly that the step of

having the computer select a character includes having the computer select the

character as a function of a probability of the character in the range of characters and

that the step of having the computer select a word includes having the computer the

word as a function of a probability of the word. Connolly discloses selecting a character

as a function of a probability of the character in the range of characters (See Connolly,

Column 3, lines 45-47, and Figure 4, element 450) and selecting a word as a function of

a probability of the word (See Connolly, Column 2, lines 41-55). King, Robinson and

Connolly are analogous art because they are from the same field of endeavor of

entering text on a computer device with a limited display area. At the time of the

invention it would have been obvious to a person of ordinary skill in the art to include the

selection of a character and a word as a probability of the character in the range of

characters and the word as a function of a probability of the word, respectively, of

Connolly, with the method of selecting a character and a word of King and Robinson.

The motivation for doing so would have been to determine the entry which is most likely

to be entered next by the user and return that entry (See Connolly, Column 3, lines 48-

53). Therefore, it would have been obvious to combine Connolly with King and

Robinson for the benefit of predicting the next entry by the user to obtain the invention

as specified in claims 6 and 7.

As per dependent claim 11, King and Robinson disclose the limitations of claim

10 as described above. King and Robinson do not disclose expressly having the

computer select the character as a function of an N-gram model. Connolly discloses

that selecting the character includes selecting the character as a function of an N-gram

model (See Connolly, Column 3, lines 5-22). King, Robinson, and Connolly are

analogous art because they are from the same field of endeavor of entering text on a

device with a limited display area. At the time of the invention it would have been

obvious to a person of ordinary skill in the art to include the selection of a character as a

function of an N-gram model of Connolly with the method of selecting a character of

King and Robinson. The motivation for doing so would have been to limit the possible

characters available for the next selection and thereby increase the probability of a

correct prediction of the user's choice (See Connolly, Column 3, lines 34-53).

Therefore, it would have been obvious to combine Connolly with King and Robinson for

the benefit of increasing the possibility of a correct prediction of the user's next entry to

obtain the invention as specified in claim 11.

Response to Arguments

7.   Applicant's arguments with respect to claims 1-11 and 18-22 have been

considered but are moot in view of the new ground(s) of rejection.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Heather Herndon, can be reached on (571) 272-4136.

9.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

LR

WILLIAM BASHORE
PRIMARY EXAMINER
4/25/2006